

MSCI USA Momentum SR Variant Index Methodology

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1 Introduction

The MSCI USA Momentum SR Variant Index Methodology aims to reflect the performance of the MSCI USA Momentum Index, wherein all changes driven by the index rebalances of the MSCI USA Momentum Index are distributed over multiple days leading into the rebalancing effective date. This index distributes the turnover at every index rebalance over multiple days with an aim to facilitate easier implementation of the changes resulting from the rebalancing considerations.

The MSCI USA Momentum SR Variant Index is constructed by staggering the changes in securities' number of shares due to rebalancing, in equal proportion over three days - T-2, T-1 and T (where T, is the effective date of the rebalancing of MSCI USA Momentum Index). The MSCI USA Momentum is constructed and rebalanced according to the MSCI Momentum Indexes Methodology¹. The MSCI Momentum Indexes aim to reflect the performance of the Momentum factor with a simple and transparent methodology while maintaining reasonably high investment capacity and liquidity of constituent companies, with moderate Index turnover.

¹ For more details, please refer to the MSCI Momentum Indexes Methodology at <u>http://www.msci.com/index-methodology</u>



2 Constructing the MSCI USA Momentum SR Variant Index

MSCI USA Momentum SR Variant Index is constructed in following steps:

- 1) Identifying the Reference Index
- 2) Rebalancing the Reference Index
- 3) Staggering the Reference Index rebalancing results

2.1 IDENTIFYING THE REFERENCE INDEX

The Reference Index for the MSCI USA Momentum SR Variant Index is the MSCI USA Momentum Index.

2.2 REBALANCING THE REFERENCE INDEX

The Reference Index - MSCI USA Momentum Index rebalances in accordance with the MSCI Momentum Indexes Methodology.

2.3 STAGGERING THE REFERENCE INDEX REBALANCING RESULTS

The rebalance changes of the MSCI USA Momentum Index are then staggered for implementation by spreading the change in Index Number of Shares (NOS) for each security over three days leading into the rebalancing effective date (T). The change is distributed equally among T-2, T-1 and T as compared to the Reference Index, where all the changes are effective on the rebalancing date (T).

For each $t \in \{T - 2, T - 1, T\}$, number of shares for each security included in the MSCI USA Momentum SR Variant Index (*Staggered Index NOS* (t)) are calculated as below:

Staggered Index NOS (t) = Reference Index NOS (t) + [Adjusted Reference Index NOS (T) - Reference Index NOS (t)] * (N/3)

Where:

 $t: Effective \ date \ of \ the \ staggering$

T: Rebalancing effective date of the Reference Index



Reference Index NOS (t): It is the number of shares of a security in the Reference Index effective on t (as of close t - 1). It is calculated as a product of the end of day security number of shares on t - 1 and Full Market Cap Adjustment Factor² in the Reference Index on t

Adjusted Reference Index NOS (T) : Reference Index NOS (T) adjusted for change in number of shares due to events like Rights Issues, Split, Consolidation, Stock Dividend, effective between t and T

N = nth day of staggering, e.g. t - 2 is 1st day of staggering

3 Maintaining the MSCI USA Momentum SR Variant Index

3.1 INDEX REVIEWS

3.1.1 SEMI-ANNUAL INDEX REVIEWS

The MSCI USA Momentum SR Variant Index follows the rebalancing schedule of the reference Index – MSCI USA Momentum Index.

The MSCI USA Momentum Index is rebalanced on a semi-annual basis, usually as of the close of the last business day of May and November, coinciding with the May and November Semi-Annual Index Review (SAIR) of the MSCI Global Investable Market Indexes. The MSCI USA Momentum SR Variant is rebalanced over three days T-2, T-1 and T, where T Is the effective date of the May and November Semi-Annual Index Review (SAIR) of the MSCI Global Investable Market Indexes.

The pro forma MSCI USA Momentum SR Variant Index in general is announced nine business days before T (T-9).

² Full Market Cap Adjustment Factor (FMCAF): A factor that is used in index constituent weighting calculation defined as (Inclusion Factor (i.e. FIF)) *(Constraint Factor)*(Variable Weighting Factor). For more details, please refer to section 2.7 of the MSCI corporate Events Methodology book at http://www.msci.com/index-methodology



3.1.2 CONDITIONAL REBALANCING

MSCI USA Momentum SR Variant Index will also stagger the implementation of any conditional rebalancing of the MSCI USA Momentum Index.

In addition to the two Semi-Annual Index Reviews in May and November, MSCI USA Momentum Index undergoes ad-hoc rebalancing subject to meeting certain trigger criteria. The details of the ad-hoc rebalancing are provided in Appendix III of the MSCI Momentum Indexes Methodology. The trigger condition for ad-hoc rebalancing is checked every month as detailed in Appendix III of the MSCI Momentum Indexes Methodology.

The pro forma MSCI USA Momentum SR Variant Index for the conditional rebalancing is also announced nine business days before T (T-9), where T is the effective date of the conditional rebalancing of the Reference Index.

3.2 ONGOING EVENT RELATED CHANGES

Corporate event treatment for the MSCI USA Momentum SR Variant Index depends on whether the effective date of the event falls within the staggering period (T-2, T-1, T), or outside the staggering period.

3.2.1 EVENTS EFFECTIVE OUTSIDE THE STAGGERING PERIOD

The general treatment of corporate events effective outside the staggering period in the MSCI USA Momentum SR Variant Index aims to minimize turnover outside of Index Reviews. The methodology aims to appropriately represent an investor's participation in an event based on relevant deal terms and pre-event weighting of the index constituents that are involved. Further, changes in index market capitalization that occur as a result of corporate event implementation will be offset by a corresponding change in the Variable Weighting Factor (VWF) of the constituent.

Additionally, if the frequency of Index Reviews in the Parent Index (MSCI USA Index) is greater than the frequency of Index Reviews in the MSCI USA Momentum SR Variant Index, the changes made to the Parent Index during intermediate Index Reviews will be neutralized in the MSCI USA Momentum SR Variant Index.

The following section briefly describes the treatment of common corporate events within the MSCI USA Momentum SR Variant Index.

No new securities will be added (except where noted below) to the Index outside the Staggering Period. Parent Index deletions outside the staggering period will be reflected simultaneously.



EVENT TYPE	EVENT DETAILS
New additions to the Parent Index	A new security added to the parent index (such as IPO and other early inclusions) will not be added to the index.
Spin-Offs	All securities created as a result of the spin-off of an existing Index constituent will be added to the Index at the time of event implementation. Reevaluation for continued inclusion in the Index will occur at the subsequent Index Review.
Merger/Acquisition	For Mergers and Acquisitions, the acquirer's post event weight will account for the proportionate amount of shares involved in deal consideration, while cash proceeds will be invested across the Index.
	If an existing Index constituent is acquired by a non-Index constituent, the existing constituent will be deleted from the Index and the acquiring non- constituent will not be added to the Index.
Changes in Security Characteristics	A security will continue to be an Index constituent if there are changes in characteristics (country, sector, size segment, etc.) Reevaluation for continued inclusion in the Index will occur at the subsequent Index Review.

Further detail and illustration regarding specific treatment of corporate events relevant to this Index can be found in the MSCI Corporate Events Methodology book under the sections detailing the treatment of events in Capped Weighted and Non-Market Capitalization Weighted indexes.

The MSCI Corporate Events methodology book is available at: <u>https://www.msci.com/index-methodology</u>



3.2.2 EVENTS EFFECTIVE DURING THE STAGGERING PERIOD

Events effective in MSCI USA Momentum SR Variant Index during the staggering period incorporate the event implementation in the Reference Index. The impact of event on the MSCI USA Momentum SR Variant Index depends on the type of event and calculation date of the Index as elaborated below.

3.2.2.1 CALCULATION ON T-9

a) Before effective date

The pro forma MSCI USA Momentum SR Variant Index in general is announced nine business days before T (T-9). If there is an event already confirmed on T-9 with an effective date in the staggering period, the change in numbers of shares for the security due to the rebalancing will not be staggered for such security until the event effective date. In this case, number of shares for that security in the MSCI USA Momentum SR Variant Index will be same as that in MSCI USA Momentum Index. In case of multiple events, the staggering will be postponed till the effective date of the earliest event.

b) On and after effective date

In case of Rights Issues and market neutral events (like Split, Consolidation, Stock Dividend etc.) which involve change in security number of shares but does not involve change in the full market cap adjustment factor in the Reference Index, staggering (as explained in the Section 2.3) will start from the next day of the event effective date.

For all other events, staggering (as explained in the Section 2.3) will start from the effective date of the event.

3.2.2.2 CALCULATION AFTER T-9

a) Before Effective Date

In case of an event effective in the staggering period, the numbers of shares for the security involved in the event as announced on T-9 will hold until a day before the effective date. In case of multiple events, the effective date of the earliest event will be taken into account.

b) On and after the Effective Date

In case of Rights Issues and market neutral events (like Split, Consolidation, Stock Dividend etc.) which involve change in security number of shares but does not



involve a change in inclusion factor in the Reference Index, staggering (as explained in the Section 2.3) will be applied again from the next day of the event effective date, taking into account the new post event number of shares in the Reference Index.

For all other events, staggering (as explained in the Section 2.3) will be applied from the effective date of the event incorporating the post event number of shares in the Reference Index.

3.2.3 TREATMENT OF SUSPENDED SECURITIES

A suspension treatment will be applied to any security suspended on any day starting from T-4 until T-2. On the day of suspension (t), the pro-forma Full Market Cap Adjustment Factor in MSCI USA Momentum SR Variant Index announced for the security for the next day (t+1) will be held constant until T. However, in case, on T-2, if a new addition to the Parent Index (MSCI USA Index) is reverted due to suspension and the security is no longer a part of the Parent Index on T, the security will also be deleted from the MSCI USA Momentum SR Variant Index effective on T.

In case a security resumes suspension on or before T-2, the Full Market Cap Adjustment Factor of the security in the MSCI USA Momentum SR Variant Index on T will be set equal to the Full Market Cap Adjustment Factor of the security in the Reference Index on T.

Suspension treatment may result in different constituents and weights for MSCI USA Momentum SR Variant Index on T as compared to the MSCI USA Momentum Index on the same day (T).



Contact us

AMERICAS

clientservice@msci.com	
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Americas	1 888 588 4567 *
Atlanta	+ 1 404 551 3212
Boston	+ 1 617 532 0920
Chicago	+ 1 312 675 0545
Monterrey	+ 52 81 1253 4020
New York	+ 1 212 804 3901
San Francisco	+ 1 415 836 8800
São Paulo	+ 55 11 3706 1360
Toronto	+ 1 416 628 1007

EUROPE, MIDDLE EAST & AFRICA

Cape Town	+ 27 21 673 0100
Frankfurt	+ 49 69 133 859 00
Geneva	+ 41 22 817 9777
London	+ 44 20 7618 2222
Milan	+ 39 02 5849 0415
Paris	0800 91 59 17 *

ASIA PACIFIC

China North	10800 852 1032 *
China South	10800 152 1032 *
Hong Kong	+ 852 2844 9333
Mumbai	+ 91 22 6784 9160
Seoul	00798 8521 3392 *
Singapore	800 852 3749 *
Sydney	+ 61 2 9033 9333
Taipei	008 0112 7513 *
Thailand	0018 0015 6207 7181 *
Tokyo	+ 81 3 5290 1555

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